



UNIVERSITAS GADJAH MADA
 Faculty of Mathematics and Natural Sciences
 Mathematics Department

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Undergraduate Program in Statistics

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MODULE HANDBOOK

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| Module name | Metode Statistika I (Statistical Methods I) |
| Module level, if applicable | Bachelor |
| Code, if applicable | MMS - 1404 |
| Subtitle, if applicable | - |
| Courses, if applicable | Statistical Methods I |
| Semester(s) in which the module is taught | 1 / first year |
| Person responsible for the module | Drs. Zulaela., Dipl.Med.Stats., M.Si. |
| Lecture(s) | Drs. Zulaela., Dipl.Med.Stats., M.Si. Yunita Wulan Sari, S.Si., M.Sc. Rianti Siswi Utami, S.Si., M.Sc. |
| Language | Indonesian |
| Classification within the Curriculum | Compulsory course/ Elective Studies |
| Teaching format / classhours per week during the semester: | 2 hours lecture and 2 hours laboratory session |
| Workload | <ul style="list-style-type: none"> - 2 hours lecture+ 4 hours individual study, 14 weeks lecture persemester, - 2 hours laboratory session + 2 hours individual study, 10 weeks laboratory session per semester, - total 124 hours a semester |
| Credit points | 3 |
| Requirements | - |
| Module objectives/intended learning outcomes | <p>By the end of this course, students are expected to be able to:</p> <p>CO-1 : Interpret the basic statistics, identify the probability concepts, calculate the probability of event and apply it to get the distribution of random variable.</p> <p>CO-2 : Use statistical analysis in order to do inference includes estimation and hypotesis testing.</p> <p>CO-3 : Apply basic statistical methods for many different data set.</p> |
| Content | <p>Descriptive statistics : data collection, data presentation.</p> <p>Measures of central tendency, dispersion, elementary probability, random variables and their distributions, sampling distribution. The Binomial, Hypergeometric, Poisson and Normal distributions.</p> <p>Statistical inference : estimation and test of hypotheses for one and two populations for mean, proportion, and variance.</p> |

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| Study and xamination requirements and forms of examination | <p>The weight of assignments will be as follows:</p> <ul style="list-style-type: none"> i. Quiz, homework 25% ii. Mid semester exam 35% iii. Final exam 40% <p>Grade scale:</p> <p>A: $85 < \text{score} \leq 100$ A-: $80 < \text{score} \leq 85$ A/B: $75 < \text{score} \leq 80$ B+: $70 < \text{score} \leq 75$ B: $65 < \text{score} \leq 70$ B-: $60 < \text{score} \leq 65$ B/C: $55 < \text{score} \leq 60$ C+: $50 < \text{score} \leq 55$ C: $45 < \text{score} \leq 50$ C-: $40 < \text{score} \leq 45$ C/D: $35 < \text{score} \leq 40$ D+: $30 < \text{score} \leq 35$ D: $20 < \text{score} \leq 30$ E: $0 \leq \text{score} \leq 20$</p> |
| Media employed | Slides and LCD projectors, whiteboards |
| Reading List | <ol style="list-style-type: none"> 1. Mario F, Triola, 2004, <i>Elementary Statistics</i>, Addison Wesley 2. Walpole, Ronald E., <i>Pengantar Statistika, edisi 3</i>, Gramedia 3. Walpole, R.E., Myers, R.H., Myers, S.L., dan Ye, K., 2012, <i>Probability and Statistics for Engineers and Scientists, Ninth Edition</i>, Prentice Hall, New York. |

CO and PLO mapping

| | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 |
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| CO 1 | x | | | | | | |
| CO 2 | | | x | | | | |
| CO 3 | | | | x | | | |